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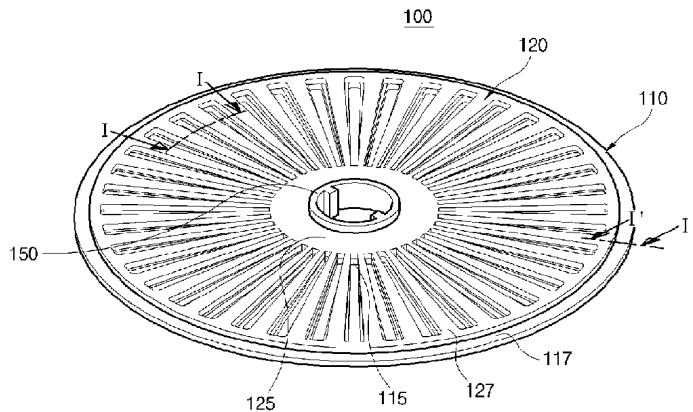
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[Continued on next page]

(54) Title: ROTOR FOR GENERATING VORTEX WATER FLOW, AND FILTERING APPARATUS EMPLOYING THE SAME



(57) Abstract: Disclosed are a rotor for generating vortex water flow that creates shear intensity for removing solid material adhered to the separation membranes during the processing of water containing pollutant material, and a filtering apparatus employing the same. The rotor consists of a first rotor having first blades and a second rotor having second blades. The first and the second blades are extended in a radial direction from a rotational axis thereof, and are disposed at positions different from each other in the rotational axis direction. The first blades and the second blades have widths different from each other in a circumferential direction around the rotational axis, or disposed at positions different from each other in a circumferential direction. Protrusions can be attached on outer surfaces of the first blades and/or second blades. The pollutant material adhered to the separation membrane can be removed effectively since various types of vortex water flow are generated over wide range, and the energy loss of the filtering apparatus is reduced.

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